

CLAIMS

1. A system for warning a failure to wear a seat belt to urge a vehicle operator to wear the seat belt, comprising:
 - 5 a sound emitter for emitting a warning sound;
 - a seat belt sensor for detecting a fastened state of a seat belt;
 - a vehicle speed sensor; and
 - an electronic controller for receiving a detection signal from said seat belt sensor and a vehicle speed signal from said vehicle speed sensor, and activating said
 - 10 sound emitter according to said detection signal from said seat belt sensor and vehicle speed signal from said vehicle speed sensor;
 - wherein said electronic controller is adapted to activate said sound emitter when a vehicle speed is higher than a first threshold level and said seat belt is not fastened, said sound emitter cyclically alternating between a sound emitting state and a
 - 15 silent state when activated.
2. A seat belt warning system according to claim 1, wherein said silent state lasts for a period of at least three seconds each time.
- 20 3. A seat belt warning system according to claim 2, wherein said silent state lasts for a period of at least 12 seconds each time.
4. A seat belt warning system according to claim 1, further comprising an alarm lamp, said electronic controller lighting up said alarm lamp substantially continually
- 25 when said sound emitter is activated.

5. A seat belt warning system according to claim 1, further comprising an alarm lamp, said electronic controller lighting up said alarm lamp only in each sound emitting state of said sound emitter.

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6. A seat belt warning system according to claim 1, further comprising a panel display, said electronic controller displaying a seat belt warning on said panel display substantially continually when said sound emitter is activated.

10 7. A seat belt warning system according to claim 1, further comprising a panel display, said electronic controller displaying a seat belt warning only in each sound emitting state of said sound emitter.

8. A seat belt warning system according to claim 1, wherein said sound emitter
15 emits sound intermittently during each sound emitting state thereof.

9. A seat belt warning system according to claim 8, further comprising an alarm lamp, said electronic controller blinking said alarm lamp in synchronism with the intermittent sound emitted from said sound emitter.

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10. A seat belt warning system according to claim 1, wherein said electronic controller is adapted to activate said sound emitter when a vehicle speed is higher than a first threshold level and said seat belt is not fastened, only after a prescribed waiting period.

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11. A seat belt warning system according to claim 1, wherein said sound emitter is activated when a vehicle speed continues to be higher than said first threshold level for a prescribed time period and said seat belt is not fastened.
- 5 12. A seat belt warning system according to claim 1, wherein said sound emitter is also activated for a prescribed time period after an ignition switch is turned on if said seat belt is not fastened.
- 10 13. A seat belt warning system according to claim 1, wherein an activated state of said sound emitter is interrupted when said vehicle speed has dropped below a second threshold level which is lower than said first threshold level, and resumed when said vehicle speed has exceeded said first threshold level.
- 15 14. A seat belt warning system according to claim 13, wherein if said vehicle speed dropped below said second threshold level during a sound emitting state of said sound emitter, said activated state of said sound emitter is interrupted upon completion of the ongoing sound emitting state.
- 20 15. A seat belt warning system according to claim 1, further comprising a sensor for detecting an alarm state having a higher priority than a failure to wear a seat belt, said electronic controller being adapted in such a manner that said activated state of said sound emitter is superseded by an activation of a second sound emitter in a pattern different from said sound emitting state of said first mentioned sound emitter as an interrupt routine as soon as said higher priority alarm state is produced, and that said
- 25 activation of said first sound emitter is resumed as a continuation of a preceding state of

said first sound emitter as soon as said higher priority alarm state is canceled.

16. A seat belt warning system according to claim 15, wherein said alarm state having a higher priority than a failure to wear a seat belt consists of a state in which the vehicle speed is greater than a prescribed limit speed.

17. A seat belt warning system according to claim 15, wherein said first and second sound emitters consist of one and a same sound emitter.

18. A seat belt warning system according to claim 1, further comprising a sensor for detecting an alarm state having a lower priority than a failure to wear a seat belt, said electronic controller being adapted in such a manner that a second sound emitter is activated in a pattern different from said sound emitting state of said first mentioned sound emitter only during said silent state of said first sound emitter when said lower priority alarm state is produced.

19. A seat belt warning system according to claim 18, wherein said alarm state having a lower priority than a failure to wear a seat belt consists of a state in which a parking brake is failed to be released.

20. A seat belt warning system according to claim 18, wherein said first and second sound emitters consist of one and a same sound emitter.

21. A seat belt warning system according to claim 18, further comprising a panel display, said electronic controller displaying on said panel display a seat belt warning in

each sound emitting state of said sound emitter and a lower priority warning in each silent state of said sound emitter when a vehicle speed is higher than a first threshold level, said seat belt is not fastened and said lower priority warning state is produced at the same time.